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As the readers of the Journal feel a lively interest in the progress and recognition of the new Anthropology, it will be interesting to many to observe in what style the subject is treated by the North American Review.

The old votaries of Phrenology will recollect the manner in which Gall—"the man of skulls"—was spoken of by the Edinburgh Review, and how, in the taunting style of flippant denunciation, Phrenology was denounced as a transient delusion, destitute either of scientific merit, or popular plausibility. With a few exceptions, the leading Reviews of England and America, have been organs of the most conservative and illiberal sentiments.

The North American Review, so far from sympathizing with the spirit of American liberty and progress, achieved for itself pre-eminent dishonor, as the malignant opponent and defamer of the patriots of Hungary,—trampling upon historic truth, to gratify its hostility against European democracy. Since this dishonorable assault, however, the editorship of the Review has been changed, and a more liberal character has been anticipated from the influence of its present incumbent.

There is some evidence of this increased liberality, in the fact that it should notice at all, in any other language than that of derision and contempt, a scientific exposition of the functions of the brain. But, to treat the subject as its importance deserves,—to recognize it as one of the great leading questions of the age, and to present fully and fairly before its readers, the tendency of that immense revolution which is impending in science, would of course be altogether too much to expect from the North American Review. It is quite enough if this venerable Rip Van

Winkle of philosophy should fairly open its eyes, but for a moment, to announce that something is coming, and close them again before it has ascertained what the coming prospect may be. This much it has accomplished. It has announced that a book on Anthropology has been published, and that it may be a pioneer for something more.

Among the critical notices of the January number, after giving a conspicuous review of a small poem, by an unknown young man of Boston, the reviewer announces the title of Buchanan's Anthropology, with the following remarks as a literary notice:

"We can best define Dr. Buchanan's theory, by saying that it is Phrenology applied, not to the brain alone, but to the whole nervous system. The organs which Spurzheim packed into the cranium are dispersed over the whole body. They may be identified by the impulse given to the corresponding sentiments or emotions, by the imposition either of the individual's own or of another's hand. The power of Psychometry, after this wise, exists in a large portion of the human race, and needs only experiment and care in order to its full developement. This psychometric faculty in its higher and rarer forms, can become intuitively conscious, not only of the hidden or remote present but also of the past, which has helped to constitute the present, and of the future, the germs of which are of course already in existence. And the modification of the same faculty is that which from the mere handling of a letter, can read the character and history of the writer. According to this system, education ought to consist in great part, in the stimulation of the organs most essential to the well-being and success of the subject, and scientific *shampooing* might well alternate with academic exercises. The book before us is certainly indicative of great ability and industry, no less than of sincerity on the part of the author. His system too has the merit of embracing within its scope many of the abnormal modes of consciousness and expression, from the simplest phenomena of *Mesmerism* to the boldest reaches of *clairvoyance* and *prevoyance*. It is impossible to deny that well established facts of this kind transcend the generally recognized laws of consciousness and communication. They are at present, to a great degree, the province of charlatanry and superstition, but should not remain so. They are undoubtedly abnormal only because our science is too narrow but are in reality as strictly normal as the common operations of the organs of the senses. They are marvelous, and seem preternatural, only because they occur under laws that have not been identified and registered, but are really no more strange than the instantaneous passage of thought on the telegraph wires that stretch across a continent. We are by no means satisfied with Dr. Buchanan's philosophy, for it savors too strongly of materialism. Yet we cannot doubt that this book will be of value as a pioneer essay on the ground which psychology and the science of mind must occupy, or else become inadequate and obsolescent."

A more flimsy and superficial notice of a scientific work is seldom found in a respectable periodical. It furnishes no positive evidence that the book has been read by the reviewer, while it shows pretty clearly that the greater part of the work has not been read or comprehended.

The notice, though superficial, is evidently candid, and free from ill-will, yet the absurd allusion to shampooing, is rather too much like solemn buffoonery, for the dignity of the Review. Shampooing the phrenological organs is a process conjured up by the editor's imagination alone, to give a ludicrous and trifling air to nervauric experiments which he has probably never witnessed or understood.

Unless the notice was prepared in very great haste, it is remarkable that the editor should have so totally failed to grasp or conceive the subject of his notice. He conveys the idea to his readers that Buchanan's Anthropology is merely a phrenological theory with curious experimental illustrations. He recognizes it merely as an unsupported hypothesis, treating it simply as he might any purely speculative essay upon phrenology. He entirely forgets the fact, that the new system is not a Phrenology, but a complete Anthropology—a thorough science of man—physiological, mental, spiritual and pathognomic. He overlooks the demonstrations of the universal mathematics of mind which constitute Pathognomy. He fails entirely to perceive the amplitude of the subject, and dismisses it with a glance at a single aspect of the science.

This shallowness of perception—this incapacity to perceive things which have been fully and distinctly stated—is very natural to that conservative order of minds which can see in the future nothing but the repetition of the past, and which cannot recognize the dawn of a new science until its existence has been visibly embodied in the multitudinous volumes of libraries and the authoritative teachings of a college. That the whole matter should be regarded by the reviewer merely as a new hypothesis, is also very natural. Like other metaphysical philosophers, accustomed to deal in theories, hypotheses, and systems of mental philosophy, which have very little reference to fact,—he has little conception of the world-wide difference between a purely speculative writer who advances his own dogmatic convictions, and the more modest philosopher, who, not deeming himself the intuitive master of truth, goes forth to learn from its Divine author in the vast volume of his creation. The faithful reporter of carefully observed facts, carefully performed experiments, and carefully established principles, is a true benefactor of the human race, because he brings directly from the divine source of wisdom the truths which guide and elevate our destiny.

“Man, the minister and interpreter of nature,” fulfils a holy office when thus engaged in enlightening his fellow-beings. But man, the egotist, who, from the abundance of his own interior wisdom, aspires to lead his fellows in the path of philosophic inquiry without that divine

guidance which comes through nature, resembles more nearly the fallen angels, whose pride revolted from divine authority, and led them far away in the darkening paths of error.

To those whose minds have thus been led—who have absorbed the barren egotisms of metaphysics, and called them knowledge—it is very natural that all philosophy should seem but egotistic speculation and transitory theory like the metaphysical wisdom in which they delight. Yet future times will recognize as great a difference between speculative metaphysicians and the honest investigators of the functions of the brain, as between the ancient speculators who decided earth, air, fire and water to be the fundamental elements of nature; and the modern chemists who have determined by accurate investigation what those elements are.

A mind thoroughly immersed in metaphysical speculations,—unacquainted with the brain, is as incompetent to judge of an Anthropological treatise, as the ancient sophists to decide upon Faraday's Chemistry.

It is not, therefore, strange that the North American Review has failed to comprehend Anthropology; but it is a little remarkable that the editor should not only have ignored and misconceived, but have actually reversed the principles of the science in the most ludicrous manner,—charging it with materialism, while, on the other hand, materialists would condemn it for spiritualism. It savors altogether too much of materialism for the Review, not because it denies the existence of the soul, not because it asserts the soul's materiality, not because it asserts the human constitution to be an electric or galvanic machine, not because it makes the character exclusively dependent upon the number of ounces of cerebral substance, not because it recognizes the destiny of man as fixed by his cranium—for, in none of these things does Anthropology lend any countenance to materialism,—but merely because it recognizes the brain as the organ of the mind, and shows that it is subject to excitement and changes of condition. In other words, because it does not entirely divorce the science of mind from the living man, and render it a barren, worthless abstraction. Would not our learned reviewer consider it an equally serious impeachment of the science of Physiology, that it shows a material eye to be necessary for the sense of vision; and the material ear, with its little bones and curious canals, and arrangement of nerves, to be necessary for the sense of hearing? Is it not shocking materialism that we cannot work without hands, or walk without legs? or, think and feel, love and hate in this life, when the brains are out of the head?

Such materialism as this, most learned reviewer, is immovably implanted in the common sense of mankind—even in your own mind, in spite of metaphysical confusion; and however averse you may be to the details of cerebral organology, bear in mind, most respectable sir, that no one knows anything more about the mysteries of nature than what he has learned; and probably after a little study of the Anthropological portions

of that volume, aided by those who have been your predecessors in the inquiry, you will be somewhat better qualified to write a respectable essay upon the science of man, in which your present obscurity indicates the necessity of a pupilage,—however profound you may be in those metaphysical subtleties and doctrines which have a remote or direct bearing upon certain portions of Anthropology.

But, most respectable reviewer, how came you to overlook the fact that the new Anthropology is the first system of cerebral science which has definitely recognized man's spiritual nature? Why did you overlook the fact, that the book you so cursorily reviewed is the first which has pointed out the relations between the spirit, the brain, and the body?—the first which has given a scientific and philosophical demonstration of the future life of man—the first which has given to spiritual philosophy a solid foundation in the human constitution? How could you ignore the fact that the whole tenor of the work was in direct antagonism to that dead materialism to which the positive sciences are tending, and which all preceding writers on Physiology have strengthened by entirely excluding from the human constitution any recognition of the spiritual nature of man, and the *modus operandi* of its relations with the body? How could you be blind to the fact, that a stern materialism, which utterly excludes all knowledge of the mind or spirit of man from the circle of positive truths, has occupied nearly the entire world of science, and is closing in around the human brain, in which last strong hold the triumph of rigid materialism would ere long have been complete, leaving the spiritual nature of man as an erratic fantasy, ignored by all men of solid knowledge—to be cherished only by the superstitious, until finally extinct with the mythology of Rome and Greece?

Wake up, most dignified reviewer, from your metaphysical dreams, and learn that a new world of knowledge—a *terra incognita*, is invitingly open before us! and that there are many whose eyes are turned to the future ready to greet with pleasure the advent of new truth however momentous or beautiful it may be!

In the January number of the New York Scalpel, a brilliant and popular quarterly publication, devoted to medical criticism, hygienic information for the people, etc., edited by the distinguished surgeon, Dr. E. H. Dixon, the following appears among the literary notices, and indicates by its generous tone that the Doctor is by no means anchored in the metaphysical philosophy of the past, but is ready to welcome the new and the true:

BUCHANAN'S ANTHROPOLOGY.—*Outlines of Anthropology, as discovered, demonstrated and taught in 1841-42.* By JOSEPH R. BUCHANAN, M. D. In four Parts. Part I. PHRENOLOGY; Part II. CEREBRAL PHYSIOLOGY; Part III. PHYSIOGNOMY; Part IV. SARCOGNOMY. Cincinnati, 1854.

"Since the departure of Gall and Spurzheim from the scenes of their earthly labors, there has been little in the progress of their science to disturb their spirits in their dread repose of Hades.

"The pyramid of sciences which they reared with Cyclopiian hands has received but few additional stones from other laborers, and is no nearer heaven to-day than it was when they left it. But although the altitude of their science may receive no increase, the sphere which it occupies is wider, though humbler than formerly. The phrenological retailers have diffused among the millions a slight knowledge of the character revealing science, which is interesting, simply because it comes home to the fireside, and illustrates in a very practical way the endless problem of human nature.

"Diffusion, however, is not necessarily propagation, unless it is reproductive. The crumbling elements of a pyramid may be blown over a continent by a passing wind, but the infinitesimal *debris* will neither fertilize the soil, nor cause the erection of other pyramids. Thus with the huge structure of Gallian phrenology. It has grown somewhat weather-beaten in the last thirty years—it has lost the freshness of novelty, without having acquired the venerable character of age; and although it has been slightly sprinkled over the landscape, no kindred structure has arisen to compensate for its decline.

"Half a century has elapsed since the developement of phrenology by Gall, and we have not heretofore had a single important contribution to the advancement of this science.

"The period of comparative stagnation has, however, come to an end, by the publication of a work which is destined to rouse the best thinkers of the age, and indicates the possibility of further progress in the direction of Anthropological science.

"This work to which we refer, "Buchanan's Anthropology," is the first thing we have seen since the death of Gall and Spurzheim, which evinces a capacity for undertaking the completion of their unfinished work. The author of this work does not belong to the class of scientific smatterers who speak of the functions of the brain without understanding the structure of that complex organ, and without a thorough knowledge of the general anatomy and physiology of man. On the contrary, he has attained a very influential position as a medical professor of profound attainments and liberal views, especially distinguished as an original cultivator of physiology. The above work, in which he has embodied a concise account of his new Anthropology, does not purport to be simply a review or enlargement of the system of Gall and Spurzheim; on the contrary, it claims to develop an original and far more extensive science, of which Phrenology constitutes but a part; and in recognizing Phrenology as an important portion of the science of man, the author does not simply follow his predecessors, but presents so many and important variations in the organology and philosophy of that science, with so many additions to its details, as well as modifications of the doctrines of cerebral anatomy and developement, that a phrenologist of

the Gallian school would find it necessary to commence his studies anew. Those who have not been absorbed in the evidences of the details of the Gallian system, (and we fancy that but few men, of much capacity for thought, have ever been inclined to regard the Gallian system as a complete and accurate science,) will find in the introductory "Review of the Gallian System," a scorching criticism upon the errors and deficiencies of that doctrine, which will satisfy them of the necessity of the radical changes proposed by the author.

"In these changes there is a plausibility and simplicity which will make one feel that if they are not true, they ought to be, if nature is to be rendered intelligible and rational in all her works.

"For example, instead of dividing the brain into an arbitrary number of organs, of exact boundaries, (after the manner of Spurzheim,) which organs cannot be verified in dissection, he maintains that every convolution is a distinct organ, and that there is an almost infinite variety in the organology of the brain, but that its functions are arranged and grouped in such manner, as to make their study more simple and satisfactory than it was in the unsystematic grouping of Gall. He gives a new view of the plan of cerebral growth, showing the fallacy of the common mode of measuring the brain, and by a new doctrine of occipital developement, he avoids the serious objections of Carpenter to the current system of phrenology.

"But however important may be the system of Buchanan, as a new system of the philosophy of the mind, adapted to a new view of the anatomy of the brain, it has a far more novel character in those departments of Anthropology which are beyond the boundaries of previous explorations. In the departments of Cerebral Physiology, Pathognomy, and Sarcognomy, we have a new continent of science. The functions of the brain as a governor of physiological action, and the wonderful manner in which its organs act at the same time on both mind and body, as set forth in this work, constitute a system of Cerebral Physiology. Every intelligent physician is aware that nothing has heretofore been brought before the world, which could be considered a Cerebral Physiology. The utmost that has been done in that direction, has merely given us a few general propositions and some vague ideas of the functions of parts lying near the medulla oblongata. In the system of Buchanan, the brain is regarded as primitively a mental organ in all portions of its structure, but as secondarily a physiological organ according to the character of the peculiar connections and relations of each part to the body.

"On the other hand, the different parts of the body maintain a definite and important sympathy with the mind. It is well known that diseases located in different parts of the body, produce very different moral and intellectual effects upon the patient. The profession have done very

little to develop the nature and the causes of these sympathies, or to show that they are guided by any regular laws.

"In Buchanan's *Anthropology* this subject is thoroughly explained, and the explanation constitutes the science of *Sarcognomy*, in the illustration of which the author gives us engravings of the statue of the Greek Slave, with a nomenclature indicating all over the surface of the body: the manner in which each locality of the surface corresponds to certain organs of the brain and traits of the mind.

"The general reader will observe at the first glance, that this singular organology of the body is quite in harmony with popular phraseology and usage. Love belongs to the breast, where all poets have located it, and the sentiments of aversion and hostility are located in parts of the body the very presentation of which is repulsive and insulting.

"In the department of *Pathognomy*, the new science aims at a high degree of mathematical precision, converting the indefinite and fleeting signs of emotion in the countenance or attitudes into the basis of an exact and rigorous science. What is especially wonderful in this, is not merely that our gestures and spontaneous movements should be classified satisfactorily or referred to their originating cerebral organs, but that the great mass of doctrines and facts on this subject should be reduced to a few fundamental laws of geometric simplicity. As a specimen of philosophic ingenuity, this portion of the work is really a master-piece; and to be appreciated fully, it is requisite that the reader should witness the personal demonstrations which the author has been accustomed to give in his collegiate lectures. These illustrations render the truth of the pathognomic laws perfectly obvious.

"In the department of *Pathognomy* the author includes the subject of *Physiognomy*, to which he has given an entirely new character. The development of the face, and the various expressions produced by the movement of its features, are referred to the action of the brain, and a connection demonstrated, which no writer on this subject has ever before conceived.

"In giving this very brief notice of the new *Anthropology*, we are aware that our references can yield but a very inadequate conception of the outlines of this gigantic system, or even of the very concise treatise in which its principles have been condensed. But perhaps we have said enough to show that a new teacher, a profound thinker is addressing the age, and is destined to make a deep impression, if not upon all his contemporaries, at least upon the foremost thinkers of the times."

Although the Review falls far short of the *Scalpel* in its appreciation of *Anthropology*, it has advanced in a quiet way far beyond its own former position, in recognizing as true those marvelous facts in man's constitution, which the conservatives have heretofore uniformly ignored.

THE LUMINOUSNESS OF THE EYE.

BY PROF. J. MILTON SANDERS.

While sitting one evening in a very dark room, where thought was necessitated to occupy that time which might otherwise be less profitably employed by the eyes, I began to reflect upon a theme which had before that time never been satisfactorily elucidated. Wherefore do the eyes of animals shine in the dark? We notice that only those animals which see acutely in the dark, are gifted with the remarkable quality of rendering their eyes luminous, and that this brightness can be developed at the will of the creature. This luminosity must therefore hold some relation to vision, for we notice that it is only when the attention of the animal is aroused that its eyes exhibit this luminous appearance—only when the vision, as it were, strives to pierce the gloom, and to descry some object within it. We are all aware that before an object can be discerned, light must fall upon and thence be reflected back to the eye. We also know that there must be a sufficiency of light to stimulate the optic nerve, or else the object upon which it impinges cannot be discerned, or but imperfectly. How, therefore, can illuminating the eye produce vision, while the object to be viewed is enveloped in darkness? Here reflection would necessarily terminate without evolving any definite results, had we not resorted to demonstration.

Most persons are aware that if the eye be pressed in a certain manner a luminosity of an annular form will be discerned; but a few persons are enabled to produce an expansion of this ring, until it assumes the form of an uninterrupted disc. If this luminous disc be directed upon the pages of a book, or any other object not too far off, the letters can be distinctly seen. The appearance of the letters does not appear to be in the least connected with the external light, for the darker the apartment the more brilliantly the letters appear to be illuminated.

If, therefore, the eyes of those animals which see in the dark, or those animals which have luminous eyes, be dissected carefully, there will no doubt be observed near the retina, one or more muscles whose office is to press the eye in a peculiar manner, that this luminousness may be developed. This peculiar faculty of luminousness is of course greater in the eyes of the feline tribe, and those which see in the dark, than in those of man.

This curious phenomenon has not only been accomplished by me, but other persons who were with me were likewise enabled to perceive objects about the room, although the experiments were done in an apartment from which the external light was totally excluded.

The question which would naturally present itself to all minds is, that if external light is not present, wherefore does this luminousness of the

eye enable us to distinguish objects which are themselves shrouded in total gloom? The experiments of Moser have elicited the interesting fact, that at all times each object is radiating from its substance a peculiar set of rays, which possess the quality of impressing themselves upon another substance placed in close juxta-position to it. The result of this mutual impression is, that the exact picture of the one is induced upon the other, even in the dark. This will transpire, even if the two bodies are not in contact, but in close juxta-position. From these experiments, and from others equally as striking, we infer that there are not only rays of a peculiar and perhaps unknown nature, continually evolved from all bodies, but that there are likewise luminous rays at all times radiating from them, but of entirely too delicate a nature to the eyes of common observers. This, in fact, has been ably and fully demonstrated by the illustrious German philosopher, Riechenbach. This gentleman has been enabled, through the aid of certain impressible persons, to demonstrate that a common bar-magnet is at all times radiating, especially from its poles, luminous rays. He has also proved that insentient matter not under that condition termed the magnetic, gives out certain streams of luminosity, which can be discerned quite vividly by certain impressible persons. These are facts thoroughly demonstrated, and have no relation whatever to those impalpabilities termed theories.*

All matter, therefore, is radiating continually luminous rays from its substance, together with other rays not yet thoroughly investigated. This we see beautifully illustrated in the diamond, for that gem, if previously exposed to the light, then carried to a dark place, emits luminous rays so vividly, that they can be observed by most persons at several yards' distance. It is not impossible, therefore, that all bodies, but with varying power, absorb through the day a certain specific quantity of light, which they emit at night. It is probable as no two bodies have the same specific capacity for heat, that they likewise have equally dissimilar powers of absorbing specific light, and consequently of radiating it.

The luminousness of the eye, it is not improbable, imparts to the optic nerve an exalted sensitiveness, by which those rays of light radiating from objects in the dark can be appreciated sufficiently to discern them. If it be that this luminosity of the eye produces vision, then certain persons only who are more impressible than others, can see objects in the dark, or at least observe them most vividly. This has been proven true, for while one person cannot discern the page of the book, even if after having practiced repeatedly for many nights, others more favorably constituted, can distinctly see the letters at the first trial.

*Matter, while undergoing decomposition, gives out luminous rays and generates heat. Persons, as has been proven by Baron Riechenbach, who are peculiarly impressible, can readily discern the spot where a body is buried, by the luminous appearance above it. This luminousness may arise from phosphuretted hydrogen, still it is so faintly luminous, that none but those impressible persons can perceive it.

The deeper we delve into the arcana of nature the more we are impressed with the conviction, that we are but on the threshold of her great temple. As we penetrate into the deep crypts of matter, and take cognizance of the strange forces therein concealed, we are struck with the superficiality of our previous notions, and impressed with the conviction, that as investigation continues to progress, we shall finally be led into an acquaintance with the secret forces which give to inanimate matter the might of sentiency. We find that all about us which appear dead and still, are not so, but that insentient matter is gifted with powers, and is endowed with forces, which give to it a double interest. The spurned clod, and the unheeded stone, are not, we find, mere aggregations of dead matter, but they, too, are gifted with an active spirit as restless as the leaf of the aspen. Yonder cold pebble, taken from the brook and thrown suddenly upon the shelf, is not, after all, the mere conglomeration of lifeless matter we had once thought, but is richly endowed with inherent activities, while its ultimate particles, or the forces which actuate them, are never at rest. At all times it is flinging from its substance millions of rays both of light and heat, and perhaps likewise others too subtle even for our investigation. There are going on within the secret crypts of its substance, in the interstices between its molecules, constant processes of decomposition and recomposition. Each little cavity is a laboratory where nature is busily engaged at her mysterious chemical metamorphoses, as the wondrous powers of the microscope will reveal. But it is the light-emission that we here especially take cognizance of, and it is thus that the continual activity of the insentient body is manifest, by revealing to the optic nerve, rendered preternatural by pressure and a peculiar luminousness, its own form amid the gloom of the blackest night. How richly must the tiger be endowed with this wonderful faculty of rendering its eyes luminous! How keenly does its vision pierce the gloom of night, and detect its unwary prey! Yet we look for centuries at this curious phenomenon, and never ask ourselves the question, wherefore is it so? The question has been asked and probably answered.—*Newton's Express*.
Cincinnati, January, 1855.

MEN WITH TAILS.

We recently stated that a man, woman, and child were on exhibition in London, each with a caudal appendix, or tail, about two inches in length. We find a confirmation of the statement in late English papers.

Dr. Hubsch, Hospital Physician at Constantinople, has addressed a letter on the subject to the London Medical Times which adds many interesting details to those already received from travelers. We will briefly lay before our readers the information, more or less positive, which is

there given, on the existence of this curious variety of the human species, and of which the earliest indication dates back as far as 1677.—*Western Christian Advocate*.

“At this time, when attention seems to be concentrated on the subject of a tail-bearing race called *Niam-Niams*, it gives me much pleasure to be able to add some observations which I have had occasion to make at Constantinople.

“In 1852, I saw for the first time one of this race, a negress. Struck by this phenomenon, I interrogated her master, a slave merchant. I was informed by him that there existed, in Nigritia, Africa, a tribe called *Niam-Niams*; that all the members of this tribe bear the caudal appendix; and, as exaggeration is a necessity to the Oriental imagination, he assured me that he had seen tails two feet in length. The one observed by me was smooth and without hair, was two inches in length, and terminated in a point. The negress was black as ebony; her hair was crisped; the teeth were white, thick, and inserted upon the alveolar processes, strongly inclining outward. The four canines were filed; her eyes were injected with blood. She ate raw meat with much relish; clothes were disagreeable to her.

“Her master had offered her for sale for six months, at an exceedingly low price, but was unable to sell her. The horror which she inspired not residing in her tail, but in her taste—which she took no pains to conceal—for human flesh.

“Her tribe eat the flesh of prisoners taken in battles with the neighboring nations, with whom they are constantly at war.

“When any one of them dies, the relatives, instead of interring the body, eat it; from this cause there are no cemeteries in the country.

“They do not all lead a wandering life; many of them construct huts with the branches of trees. They manufacture the implements of war and of agriculture—cultivating maize, grain, etc. Cattle are also bred by them.

“The *Niam-Niams* have a language which is altogether primitive; it contains many Arabic words. They go entirely naked. The strongest among them becomes their chief; he it is who leads them to battle, and it is he who divides the booty. It is not known whether they have a religion; but it is probable they have not, from the very great facility with which they embrace any that is taught them. It is very difficult to civilize them, their instinct leading them always to search for human flesh. There are examples of slaves who have killed and then devoured the children of their masters who have been confided to their care.

“I saw, last year, a man of this same race, having a tale one inch and a half long covered with a few hairs. He seemed to be about thirty-five years of age, was robust, of good constitution, ebony black, and with the same particular conformation of the lower jaw, spoken of above, that is,

the alveoles inclined outward. Their canines are filed in order to diminish their masticatory force.

"The Niam-Niams are endowed with Herculean strength. The merchants reject them, as they are so very difficult to subjugate, and the people fear to confide to them the guard of their houses.

"I knew, at Constantinople, the son of an apothecary, ten years of age, who was born with a tail one inch in length; he belongs to the white Caucasian race. One of his ancestors presented the same anomaly. These phenomena are generally regarded in the east as a sign of brute force.

"The Turks have known for a long time this race of men, and are very much astonished that scientific Europe seems to ignore their existence at this late day."

CONSTITUTION OF MAN.

A general view of the constitution of man is a necessary preliminary to its analytical study. The life of man is located in the totality of his frame. Yet, it cannot be said to be equally distributed, and to hold an important relation with all parts. The phenomena of life are in continual progress in all parts, but the most important effects and controlling forces of life, have more circumscribed locations. Speaking of life in a purely mechanical and chemical sense, we might recognize its diffusion throughout the entire body. In a physiological sense, the vital force is especially concentrated in those parts where the most active and vitalizing processes occur, and where the resistance to death is the strongest. The heart and lungs might therefore be considered the center, or points of departure of physiological life, as it is from these two organs that the influence proceeds which sustains the healthful progression of vital phenomena. But in a higher and truer sense we may say that life resides in those parts in which we are conscious of existence, and which have a commanding control over their subordinates. It is in the brain and its ramification of spinal nerves, for sensation and voluntary motion, that the conscious existence of man is located. Specially, and positively in the brain—incidentally by communication in the corporeal nervous system. Although we have really a conscious existence in the brain alone, the sphere of consciousness is not capable of being very distinctly located; for the spiritual principle in man is not susceptible of the same accurate limitation as material structures. Our apparent consciousness throughout the body is derived from the brain, and ceases to exist when

the communication with the brain is interrupted. We may therefore say that in the highest and truest sense, man lives in his brain, while in the subordinate physiological and chemical senses, life is located in the body. In this higher or psychological sense, life signifies, not a series of material changes visible to the eye, but a series of events known only to our consciousness—our thoughts and emotions, our passions, pleasures, desires, appetites and physical sensations. These, in their totality, constitute human life, as it is understood by mankind; while the material phenomena of the body, which are the mere circumstances or conditions of life, are understood only by laborious scientific investigation.

This psychological life, being all of which we are conscious, and all for which we care, should be regarded as the true life of man, of which the physiological and chemical phenomena are but the necessary conditions and instrumentalities. We should not forget in our chemical and physiological studies, that we are examining merely the physical apparatus necessary to life, the true life being something far higher and subtler, which is not absolutely dependent upon its material apparatus, and which survives the destruction of its material instruments.

The life of which we are now speaking, is not the conscious existence of a disembodied spirit, but the conjoint operation of the spirit with its material organs. Terrestrial human life is therefore the result of the union of the spiritual powers with the physiological structure, and their continual mutual reaction. It depends, therefore, upon the maintenance of such a condition in the brain and nervous tissue, as admits of inter-communication with spiritual influences. While human life exists, or in other words, while spirit and matter are properly combined, there is an intimate sympathy between them,—every material change in the brain produces a corresponding change in the spiritual power, of which, in turn, by ideas or by borrowed spiritual influences, modifies the condition of the brain. Hence the most essential fact to the continuance of life is the preservation of the brain and nervous system in that high and delicate state of organization, which admits of spiritual influences. This condition is maintained by the red arterial blood, which, as it passes through the canals and pores of nervous structures, imparts a warmth and vitalizing influence which sustain their action. This vitalizing influence is believed to be certain imponderable agents derived from the oxygen of the atmosphere and evolved in the blood by the combination of oxygen with hydrogen and carbon, developing a peculiar imponderable atmosphere or aura, which accompanies the red globules of the blood, and which gives to the nervous substance the subtle imponderable fluids necessary for its high functions. Whether the globules or cells of the nervous structure, secrete or separate these imponderable fluids from the blood, or whether they are imparted by mere contact, it is unnecessary to inquire. Suffice it to say,

that life is commensurate with this influx of imponderable agents by the blood, and that an extensive circulation, and active respiration, develop its higher manifestations, while the exclusion of oxygenated blood from any part of the nervous system arrests the operations of its life.

So wonderfully are the powers of the brain exalted by an increased influx of arterial blood in the whole or any portion of its structure, and so uniformly do they decline, as the blood becomes more venous or deteriorated in quality, that it would be difficult for one to avoid the conclusion that thought and conscious life were mere products of cerebral action, if there were not evidences of a different character to prove the independent existence of a spiritual power.

Life may then be defined as the phenomena resulting chiefly from the action of arterial blood upon nervous substance. In this process, from the delicacy of the compounds, or from the delicacy of the organized substances concerned, there is a continual tendency to decomposition and disintegration of substance which requires to be replaced. This is effected by the deposit from the blood, of such substance as is appropriate to nourish nervous structures. Hence arises the necessity for a continual supply of nourishment for the manufacture of new blood. This requires a complicated digestive apparatus to convert our food into something analogous to blood. Hence the necessity for the alimentary canal, the liver, the pancreas, and the organs of mastication; while the necessity of removing effete materials from the blood, and discharging heterogeneous particles which may gain admittance, originates the necessity for the activity of the kidneys, skin and bowels. This complicated apparatus is all necessary to counteract the continual tendency to waste and decomposition. Then to supply these organs with food and protect them from mechanical injuries, the skeleton, with its apparatus of muscles must be added, which creates a continual demand for nourishing food, and requires a proportionate development of the nervous system to control its action. To sustain the activity of the whole of this psychological, digestive and locomotive apparatus, we need the heart to propel the blood actively to all parts, and lungs to maintain a continual supply of imponderable elements from the oxygen of the atmosphere. Hence the peculiar constitution of man, in which all the organs have a reciprocal influence or sympathy through the blood and the nerves, and the largest organs exercise a paramount influence, giving their own character to the entire temperament.

The mind, however, is not entirely satisfied by this description of a complex structure with parts that are mutually reactive, but desires to rest upon some central or primary conception to which the other ideas are subordinate. There is a prevalent desire to determine the positive seat of life in the human constitution—to trace all its vital phenomena to some ultimate and simple causation. The materialist finds this ultimate caus-

ation in the properties of matter, and regards life as simply the effect of an organization which gives to these properties an opportunity of displaying systematic effects. The spiritualist finds his ultimate causation in the divine spiritual energy operating by continual influx into terrestrial forms.

But whatever this *fundamental* causation may be, the *proximate* causation of vital phenomena is the practical question which principally engages the attention of the inquirer. Does life proceed simply from a living force resident in the brain, which moulds and develops the body, and which is the continual source of its operations? Or does it proceed from the properties of the corporeal structures, which, when they have elaborated a well developed brain, originate thereby a more powerful mind? Either doctrine may be plausibly maintained, yet each is rather unsatisfactory when tested by reference to facts.

The doctrine which refers all to mental power and the brain, is easily refuted as we see every function of animal life performed by invertebrate animals without brain, while in vertebrated animals the functions of animal life are often most powerful when the brain is but little developed, and in man a very large developement of the brain diminishes the general vital force of the constitution. Hence it is evident, that although the mind and brain exert an influence upon the body, they are not the sources of its vitality, which they consume rather than increase.

BLETONISM.

This subject having been illustrated in the lectures on Anthropology, additional facts will doubtless be interesting to the reader.

Mount Vernon, Lawrence Co., Mo., July 13th, 1852.

EDITOR OF THE VALLEY FARMER:

DEAR SIR:—I have noticed in your May No. a few columns devoted to the subject of Well-Digging, and the mysteries of finding water under ground. I am not a skeptic in that doctrine, notwithstanding I am as uncertain as to the why or wherefore of the thing as other men in whose hands the mystic rod will not move. About the year 1808, in the State of Tennessee, and while a boy of fifteen years of age, I observed that the tops of growing timber had a tendency to lean toward water, and at a certain place where a large spring of water broke out of a hill side, ran a few feet and fell some ten feet over a rock into a cavern, and at the distance of about eighty poles broke out at the bank of a small river, I had explored this subterraneous passage of the water in its whole length, and

thought I could mark its route on the top of the ground, over a smart little rise, by the projecting limbs and recumbent tops of the trees, and particularly of some species of timber more than others. This idea led me to notice other places, and I thought I had made a great discovery, and I began to broach my new discovery to others. I had made some disciples among the boys, but when the older ones got hold of it, they either scolded me for my superstitious folly or laughed me to scorn. Well, I had got so confirmed in my own doctrine that I have, for the period of forty-five years, been a close observer and examiner of the matter, and can now affirm, from long experience and many actual experiments on the subject, that I can, in a timbered country, tell every spot where a vein of living water runs, and trace it in its winding under ground. Your article was the first I ever saw in print on the subject, and I am in hopes it is not the last, for be assured a science of important utility lies at the bottom, and it requires several heads and hands to pick it out.

In the year 1811 was the first I ever knew anything of the rod working for water, and from my previous observations, the idea caught, and I took hold of the rod with a believing grasp, and found that it would work. From this discovery I proceeded to try other experiments, and I found that wet weather streams and stagnant pools, or even streams above ground, had but little influence on the working of the rod. I found some in whose hands the rod would not work, but when I grasped their hands in mine, it would work in spite of them, and to their astonishment; and others again, I have found in whose hands it would not work when I grasped their hands in mine. The why or the wherefore of this I am not able to account for.

In the course of my experiments, probably fifty wells have been dug after my direction, in which but one solitary failure has been made, and seldom but a foot more or less from my guess. I have found that the hazel is the best, although the beech and hickory, and several other kinds of timber, will do very well. I chose the hazel of last year's growth, forked, and both prongs evenly of a size and length, trimming each to the extremity. If I wish to find a vein of water nearest me, I let the rod swing horizontally, holding the prongs perpendicularly over each other, in this position the point of the rod will move toward the stream, and by moving in that direction until the rod turns back, it is easy to ascertain the perpendicular point over it, and follow the stream back and forth so as to obtain a shallower spot, or one clearer of rock on the vein. When the spot is ascertained, hold the rod in a vertical position, on either side of the stream, holding it firm, a prong in each hand, thumbs up, and the point of the rod will attract forward and downward, so as very often to break both prongs, but when the draw is very strong, let the rod a little looser in the hand to prevent its breaking. When it has come to a certain position, either in a horizontal or most generally under, it will

make a short pause, and quiver like the needle of a compass in settling. When in this state of mysterious excitement, the mind of the operator seems to have some directing influence, for the desire now is felt to know the depth, and the inquiry of the mind is instantly obeyed by the inanimate rod, super animated, and it begins regularly to beat or vibrate, one, two, three, four, etc., for the number of feet. This may appear strange to many, but I have hit oftener under a foot than over, in the depth.

I have for several years back been collecting and arranging many things on this subject, and had something like a small volume of papers ready for revision and systematizing, when, (last winter was a year ago,) I had the misfortune of having my house, library, papers, and all that I had, burned up, and what I now write or may write in future on the subject, will be the effusion of fixed principle on long past experience.

Many minds revolt from the ideas of things they cannot understand the why and wherefore of, or reason for. They see the "water conjurer," as they please to call us, feeling about with our forked sticks, and guessing where the water may be or may not be, just as it happens.

* * * Well, just so with other great discoveries. I wonder how Laban felt when Jacob proposed to him a certain thing? Gen. xxx:32. And if Jacob had told him the whole plan I have no doubt but that Laban would have laughed at Jacob's supposed folly and madness; but the readers of sacred writ know the effect that a few spotted rods placed in the watering troughs, had on the cattle, and that a divine order of Providence is no more or less mysterious, nor no more or less true than the operation of the same kind of rods in discovering streams of water underground. Abraham, Isaac, Laban, Jacob and others, dug wells in their day, and I have no doubt but the effect of this mysterious rod was then understood, as rods were used as divining mediums. Moses and Aaron, and Egyptian Magicians used rods, and no doubt the Eastern Magicians, or as they were called, wise men of the East. But let this be as it may, it is now a known fact that rods are used, and that to some good purpose in the discovery of the hidden beverage, Nature's greatest blessing to animal existence.

The history of the rise and advancement of the philosophy of electricity, of magnetism, galvanism, psychology, etc., will show by what laws of regulations and adaptations things are connected with things in their different physical operations. And who knows why and wherefore that the great science of hydrology should not, under some hand or hands be perfected into a practical system, and rank among the studied sciences of future generations.

JOHN W. WILKINSON.

THE MAGNET AND COLD.

History informs us that many of the countries of Europe, which now possess very mild winters, at one time experienced severe cold during this season of the year. The Tiber at Rome was often frozen over, and snow at one time lay for forty days in that city. The Euxine Sea was frozen over every winter during the time of Ovid, and the rivers Rhine and Rhone used to be frozen so deep that ice sustained loaded wagons. The waters of the Tiber, Rhine and Rhone now flow freely every winter, ice is unknown at Rome, and the waves of the Euxine dash their wintry foam uncrystalized upon the rocks.

Some have ascribed these climate changes to agriculture—the cutting down of the dense forests—the exposure of the upturned soil to the summer sun, and the draining of the great marshes. We do not believe that such great changes could have been produced on the climate of any country by agriculture, and we are not certain that any such theory can account for the contrary change of climate—from warm to cold winters—which history tells us has taken place in other countries than those named. Greenland received its name from the emerald herbage which clothed its valleys and mountains; and its east coast, which is now inaccessible on account of the perpetual ice heaped upon its shores, was, in the 11th century, the seat of flourishing Scandinavian colonies, all traces of which are now lost. Cold Labrador was named Vinland by the Northmen, who visited it in the year 1000, and who were charmed with its then mild climate. The cause of these changes is an important inquiry.

A pamphlet by John Murray, civil engineer, has recently been published in London, in which he endeavors to account for these changes of climate by the changeable position of the magnetic poles. The magnetic variation or declination of the needle is well known. At the present time it amounts in London to about twenty-three degrees west of north, while in 1659 the line of variation passed through England and then moved gradually west until 1816. In that year a great removal of ice took place on the coast of Greenland; hence it is inferred that the cold meridian, which now passes through Canada and Siberia, may at one time have passed through Italy; and that if the magnetic meridian returns, as it is now doing, to its old lines in Europe, Rome may once more see her Tiber frozen over, and the merry Rhinelander drive his team on the ice of the classic river.

Whether the changes of climate mentioned have been caused by the change of the magnetic meridian or not, we have too few facts before us at present to decide conclusively; but the idea once spread abroad, will soon lead us to such investigation as will no doubt remove every obscurity and settle the question.—*Scientific American*.

SHAKERTOWN.

This village, or rather group of villages, is about seven miles from Franklin, and four from Lebanon, Warren county. There are in this community, between four and five hundred persons, and about five thousand acres of land. The Shakers are a neat, quiet, industrious people. They are divided into five families, known by the following names: the "North Village," "Center Village," "South Village," "West Brick," and the "West Frame." They are emphatically a domestic people, carrying on a great many useful branches of manufacture. Hence, we have Shaker brooms, baskets, cloth, etc. They call themselves the "United Society of Believers," have nothing to do with political matters, and call all others outside of their community, "worldlings." They believe in perpetual celibacy, and in dissolving the marriage relation, and also the parental and filial ties. The husband must renounce his wife, the wife must forsake her husband; parents must give up their children, and children must abandon their parents. Their religion is as erroneous as it is curious. Their chief religious exercise consists in dancing and singing. When they meet for religious worship they enter a large room, remain silent for a short time, and then suddenly arise, and all together repeat the following:

"Come diddle,
Come daddle,
Come dow—
You long-tailed devil,
You must go now:
Cut off his tail! cut off his tail!"

While repeating the last line of the above, the whole assembly simultaneously strike the wrist of the left arm with the lower edge of the right hand open, as indicative of cutting. This is religion with a vengeance! I think they would do a better service for the world, if they would "cut off" his *head*. At one time, it is said, they drove the "Old Fellow" out of their assembly, and chased him under a hay-stack *instantly*. I think the old fiery "Serpent" escaped.

S. L. YOUTER.

Franklin, O., Jan. 21, 1855.

Western Christian Advocate.

[If the above be true, truth is more *ludicrous* than fiction.—ED. JOUR.]

ASPECTS OF TRUTH.

While all desire to see the truth, many fail to see it clearly on account of the fogs which environ their position, or the colored glasses which they wear. Others, with tolerably clear vision, behold very different aspects of truth on account of their different positions. These remarks are forcibly illustrated in the reception of modern spiritual phenomena. Dr

Richmond, in our last number, supposes that they arise entirely from subtle impressions on our own minds, or else from the creative power with which our own minds actually vitalize and energize the automatic creation of our own thoughts.

A friend of spiritualism has been prompted by Dr. Richmond's essay to send a reply, for which I regret that I cannot find room, as the Journal is altogether too small for its legitimate purposes, and cannot spare even a page for the discussion of such subjects. Our correspondent delivers his sentiments with equal earnestness and frankness, pronouncing the Doctor almost a monomaniac in his theory, like those who are so prejudiced by early education "that they will not permit a thought to enter their minds which tends in any degree to controvert their firmly fixed opinions. Their minds will resort to a variety of subterfuges, of the most *tortuous warped* and *ridiculous* nature to account for facts which have come up, and which must upset their cherished dogmas."

However "tortuous and warped" the Doctor's theory may be, he is very candid in admitting the facts of spiritualism, and equally candid in reasoning on the subject, and attempting a philosophic explanation instead of resting contented in dogmatic denial.

Dr. Richmond is one of the best co-operators that spiritualists could desire, for he frankly states his theory and exposes it to criticism. It is about the only theory that could be adopted after denying spiritual communication. And if this theory is so extravagant, tortuous, serpentine and ridiculous, as our correspondent maintains, it constitutes a perfect *reductio ad absurdum* for anti-spiritualism, and therefore illustrates by contrast the superior simplicity, beauty and common sense propriety of the spiritual philosophy.

There is very little danger of the world being converted to Dr. Richmond's faith, for those who do not rest in stubborn denial or quiet indifference as to the facts, will generally admit after recognizing the facts, that they clearly prove the presence of invisible intelligent spirits.

POWER OF THE HUMAN VOICE.—"Hoffman's Organophonic Band," have recently been giving a series of concerts of a wonderful character. The Bristol Mercury thus describes them:

"The artists, nine in number, form what is termed in the bills, a "human voice orchestra;" in other words, they, by means of vocal organs, imitate a variety of instruments. We are told that the perfection to which they have reached has cost their conductor a large expenditure both in time and money, and the closeness with which they imitate is interesting, not only as displaying the capabilities of the human voice, but also as showing what seemingly insurmountable obstacles skill and perseverance

may overcome. The organophonic musicians do not confine their imitations to any particular class of instruments; brass and reed, wind, string and percussion fall equally within their scope. One man screws his mouth up to a sort of whistling form, and straightway he emits the rich, mellow tones of the clarionet; a second produces those of the cornet, a third becomes a sort of a biped ophiclide or trombone, a fourth imitates the crisp rattle of *tambour militaire*, while a fifth so truthfully imitates the jingle of the cymbals that it is difficult for the listener to persuade himself that he has not before him some turbaned Ethiop clattering the brazen sounds after approved oriental fashion. When playing in combination, the singers produce much of the effect of a small military band, but at intervals of the concert a couple of the most skilled of them venture to appear as soloists, and more marvelous still, one of them actually plays by himself "concertante duett," on the clarionet and cornet-a-piston."

MORAL INFLUENCE OF THE INTELLECTUAL ORGANS.

In determining the destiny of man, and in the wise statesmanship that controls the rise and fall of nations, one of the most important questions that needs determination, may be thus expressed :

What influence upon the moral nature, is exerted by the cultivation of the intellectual organs?

Deeply interesting, too, is this question to every parent or teacher, and to every young man engaged in the holy labor of self-culture.

Does the systematic and vigorous cultivation of the intellectual organs tend to elevate or lower the moral character of a nation? Or, is it neutral in this respect, and void of bearing upon morality and religion? Or, does it simply modify the moral character, giving it a new aspect, without elevation or depression? Such are the questions for a statesman.

Again, if violent or vicious impulses are manifested by the young, is it desirable to subject them to a vigorous intellectual discipline, and would such discipline elevate their moral nature, or sharpen their vices to a keener edge, giving them greater success in knavery? Is it well for the farmer, whose sons are growing up strong in health and integrity,—plain and uncultivated—but good and true, to send them to college, and subject them to purely intellectual culture? Would they be apt to go back better and nobler men, or would their moral and physical stamina be improved by collegiate cultivation? May not the vast efforts of the philanthropists for the education of the masses, result in partially undermining their true strength of character, and substituting luxurious vice for hardy manhood—plotting, cunning and trickery for bold integrity—vicious

speculations and the crazy theories of charlatanry for the old fashioned stability and integrity of society? These are grave questions; and demand to be met, not by the spirit of disputation, but by the light of science.

Again, is it true, as some affirm, that moral corruption prevails in the best educated classes, and that the highest order of virtue can be found only among a comparatively rude and unsophisticated people? Or, is it true that ignorance and vice go hand in hand, and that the uneducated classes generally constitute a rabble, which can be regulated only by military power?

Finally, in reference to ourselves, is intellectual growth the highest or greatest growth of man—the one thing needful to his emancipation from vice and error—or is it a process which exhausts the vital force, reduces the moral dignity, and results in a negative insignificant character, incapable of exalted greatness or goodness?

In reference to all these questions, much might be said upon both sides, zealous and eloquent debates might be held, and resolute partisans formed for opposite opinions. But it is the noble function of science to terminate all intellectual strife, and harmonize antagonistic parties, by pointing out to each the amount of truth contained in the doctrines of all.

Anthropology clearly reveals many facts and principles, from which all of these opinions might have taken their rise, and when it points out the just foundations of adverse opinions, it shows that the truth is not merely an intermediate doctrine between those of antagonistic parties, but a more comprehensive doctrine than any, and materially different from all. The settlement of this great educational question by Anthropology involves many complex relations, but the elucidation is so clear, so ingenious and satisfactory, as to render it a delightful task to travel by the pleasant pathways of positive science, from the obscure stages of philosophical disputations to the distinct recognition of unquestionable laws.

Aside from all scientific illustrations of this subject, the practical fact appears to be well established by experience that the general tendency of intellectual cultivation is to repress the developement of vice, and that criminal offenses are extremely rare, among the well educated portion of the population.

A New York Journal remarks—"The statistics of our state prisons show that of all the inmates received during the year 1852, less than five per cent could read, write and cypher. Now, when, we recollect that four-fifths of our people can read write and cypher, we must say that these statistics prove that education does suppress vice. If the school-house were as productive of crime as ignorance, out of every hundred men sent to the state prison, ninety should possess a good English edu-

cation. Statistics, however, prove the very contrary of this. That crime is increasing among us we admit, but it is only because immigration is carried on to a greater extent than formerly. The foreign population is only equal to about one ninth of the whole population of the country, and yet this population furnishes us with three-fifths of the crime."

In harmony with the foregoing facts, I have often observed that in persons of good moral character, the physiognomy indicated high intellectual cultivation, with but moderate activity in the moral region. Why and how is it that intellectual cultivation thus becomes a substitute for moral? Are the intellectual and moral organs so closely connected in development, and so analogous in their actions, as to render the cultivation of one almost equivalent to that of the other? In one view of the subject we may reply in the affirmative, but in another view our answer must be emphatically negative. There is an intimate association between the intellectual and moral organs which causes their actions to be co-operative; and, at the same time there is an occasional rivalry and antagonism between them, and a strong tendency of the intellectual organs to associate with the basilar, and thus co-operate with vice, giving it remarkable power and success. If such were the general law it would seem to impeach the benevolence of providence, and prognosticate a gloomy destiny for man. But, on the other hand, the general prevalence of the higher law, that intellectual and moral action should co-operate, brightens our landscape, and notwithstanding the mixture of evil, which we must recognize in the tendencies of human nature, assures us of the final triumph of the good.

The reason why intellectual is so closely associated with moral cultivation is, *practically*, that intellectual cultivation requires the restraint of the basilar organs, and thus favors the preponderance of the moral. Sedentary pursuits and concentrated thought are incompatible with the full exercise of the restless organs which tend to violent crimes. Hence students and persons of cultivated minds are especially exempt from any tendency to turbulence or violent acts, and if they commit offenses are apt to be guilty of those which have a gentler and more cunning character.

If the antagonism of the intellectual organs to crime depends upon the calming and restraining effects of study, it may be supposed that no such influence would be exerted by intellectual activity of a less studious character, as in the ordinary pursuits of business. The intellect of the hunter, the warrior, the traveler, the merchant or the politician, may be as intensely active and thoroughly cultivated as that of the student, but their intellectual power is not a guarantee of their moral worth. Their intellect co-operates as readily with the bad passions as with the higher sentiments.

It may therefore be affirmed that intellectual power developed by an

active life, is not an indication of moral worth, and that it is only the tranquil educational development of the intellect or some still higher intellectual cultivation in connection with the moral sentiments, which tends to the restraint of crime. It may, then, be justly maintained, that although increase of intellectual power does not necessarily increase moral worth, intellectual *education* is really one of the most powerful co-operative agencies for moral improvement.

Viewing the subject *NEUROLOGICALLY* (i. e., by reference to the cerebral organs) we discover clearly *why* and *when* the intellectual and moral organs must co-operate.

In the first place, intellectual power and activity must depend upon the general activity of the brain—upon the concentration of nervous and sanguineous excitement in the intellectual organs. Hence the aggregate tendency of the basilar organs, which divert the vital forces from the brain to the body is highly unfavorable to the intellect—especially to concentrated, correct and philosophical thought. All of the basilar organs tend to produce more or less unsoundness or feebleness of mental action and both insanity and fatuity may be produced by certain basilar excesses.

On the other hand, the organs which tranquilize basilar excitement and give to the cerebral a proper predominance over the corporeal functions lie in the upper half of the brain, and on its lateral aspect, in a locality intermediate between the energetic and feeble, the virtuous and the selfish organs—or, more accurately speaking, intermediate between the virtuous and energetic above and the neutral, which are *immediately* contiguous, below.

The organ which gives the highest predominance to pure mentality, or in other words, developes cerebral action at the expense of corporeal, and produces a cerebral or cephalic temperament, is situated vertically above the ear on the temporal arch, at the upper portion of the organ of Sublimity. Directly posterior to this lies the organ which not only invigorates but regulates and sustains in a proper manner the action of the brain,—the organ of Sanity, adjacent to the upper edge of Cautiousness.

These organs are necessary to the sound and vigorous action of the intellectual faculties, and especially of the reasoning powers, because they sustain the tone of the brain, and repress all influences unfavorable to sound reflection. They also invigorate greatly the moral faculties, Sublimity being co-operative with Religion, and Sanity with Firmness. It is thus obvious that the intellect, in its sound, tranquil, reflective manifestations, co-operates with the moral faculties, and that in proportion as its action is unsteady and scattering it co-operates rather with the basilar region.

All of the intellectual organs may thus co-operate with the coronal or the basilar regions, but it is chiefly the reflective or reasoning organs

which are disposed to act in a calm, concentrated manner, while the natural tendency of the perceptive organs is to restless, desultory action. The systematic cultivation of the reflective organs, therefore, is highly conducive to our moral improvement, while the cultivation of the perceptive organs is more apt to strengthen the animal than the moral nature.

It is a very common opinion that purely intellectual cultivation has an ennobling moral influence, without reference to the distinction just mentioned. But while philosophical studies, and all investigations which involve a necessity of reasoning or thinking profoundly, are eminently conducive to our moral growth (as wisdom and goodness are nearly allied) there is no such tendency in that intellectual activity which belongs to the perceptions of business and travel, nor in the cultivation of the descriptive physical sciences, mineralogy, conchology, botany, zoology, anatomy, chemistry, natural philosophy, astronomy, mathematics, and the various arts, except in proportion as they exercise the reasoning faculties. On the contrary, there is a decided tendency in such studies (with the exception just mentioned) to diminish the moral elevation of the character, and, like business pursuits, to strengthen the predominance of the animal faculties, and especially to deaden the more exalted and magnanimous sentiments. The objects of positive or physical science being entirely material, the tendency of such scientific study is to promote materialism and to give an impregnable strength to the convictions of the materialist.

Such studies are not at all at war with the spirit of despotism or of luxury, nor even with the spirit of Mammon so far as the latter depends upon the selfishness of the basilar organs. The engineer or architect, the mathematician, astronomer, mechanic, sculptor, painter, or naturalist, may be as much at home in a despotism as in the most Utopian republic, and it has generally been the object of enlightened monarchies to encourage these votaries of science because of their consciousness that such studies and pursuits were not apt to render men less fit for the associations of despotism.

The claim which is often set up in behalf of the physical arts and sciences that they ennoble and elevate our moral nature, cannot be sustained. The scientific men of America and Europe are not much elevated above the mass of the communities in which they reside, as to their perceptions of truth in moral questions, their candor and moral courage in the pursuit of truth, their freedom from prejudice, their faith in humanity, or their spirit of humanitarian progress.

The cultivation of the fine arts, which is so freely eulogized as one of the most necessary influences for the improvement of a people, is in fact generally promotive of a refined and luxurious selfishness, which has neither manhood, generosity nor philanthropy.

Nor does the cultivation of mere learning ennoble the character, al-

though it may refine and soften. A group of learned men cannot be safely pronounced more patriotic or philanthropic, more disinterested or honest, than a group of unlearned farmers.

We are therefore compelled to admit that the group of faculties belonging to the lower half of the intellectual organs (the knowing and recollective faculties) cannot be relied upon for any ennobling moral influence, since they are as apt to co-operate with the basilar as with the coronal organs. Our reliance then for moral influence from the intellectual organs must be entirely upon the upper half—the reflective, reasoning group—the organs of comprehensive thought and profound wisdom.

Let us next consider the Pathognomic mathematical law which lies at the foundation of this subject.

[*To be continued.*]

THE BACK DOOR ENTRANCE.

Why is it that truth cannot be publicly, rightfully and honorably installed in its true position? When a defrauded monarch has reconquered his kingdom, he enters his palace and assumes his authority with loud acclamations and universal homage. When the rightful landlord of an estate has vindicated by law his just claim, he enters upon possession by the front door, and acquires an undisputed sovereignty—his house is his castle, and the squatter claimants who have been ejected are not permitted to linger or insult him by their presence.

But when a Divine truth, long derided, rejected and deprived of its rightful authority, has at last vindicated, by pure reason, its exalted claims, it receives no such public recognition—no such honorable installation. Instead of entering as the rightful landlord by the front door, and assuming sovereign possession, its claims are denied and derided to the last, and the only evidence of its success is found in the fact, that derision gradually ceases, opposition becomes more quiet, and it is gradually permitted to enter upon the margin of its own territories, as a tenant at will, or a trespasser whom the landlord has learned to tolerate. It even receives occasionally a passing nod of recognition,—is permitted to look into the kitchen,—and, finally, is even allowed, in some twilight hour, to enter by the back door, its own rightful residence; and the tried friends of persecuted truth are called upon to rejoice, that it has attained the distinguished honor of entering by the back door, or sitting in an ante-chamber of its own mansion.

The claims of Phrenology, as a valuable science, have been suf-

ficiently demonstrated by the investigations of the last fifty years; and, it has been permitted to hover upon the outskirts of scientific proceedings. The name of Gall has been honored as a scientific teacher, but where has the science ever received a public front door invitation to enter and occupy its just position? Where are the colleges or learned societies which have justly recognized its claims?

The marvellous psychological phenomena, which have been grouped under the title of Mesmerism, have vindicated their claims by triumphant demonstrations throughout the civilized world. But where and when have these sublime psychological truths ever received an honorable front door invitation, or been introduced and installed in their proper and honorable position in the seats of learning?

In vain do we look for any such evidences of magnanimity. The storm of derision against these sciences has ceased; but they still remain standing in the open air, unsheltered by collegiate walls,—within which the squatter claims of pedantic and short-sighted metaphysics, are still recognized.

Learned gentlemen, however, tacitly admit the general truth of these sciences; and learned reviews give vague intimations that there is something in them: and, perhaps our self-respect must be contented with these quiet nods and back door recognitions. At any rate, it is a significant fact, that this quiet recognition is taking the place of vituperation, which was once fashionable. It is a significant fact that the North American Review now alludes to these wonderful phenomena as scientific facts, of which philosophy *must take cognizance, or grow obsolete itself*—which idea it expresses as follows:

“His system, too, has the merit of embracing within its scope many of the abnormal modes of consciousness and expression, from the simplest phenomena of *Mesmerism* to the boldest reaches of *clairvoyance* and *pre-voyance*. It is impossible to deny that well established facts of this kind transcend the generally recognized laws of consciousness and communication. They are at present, to a great degree, the province of charlatanry and superstition, but should not remain so. They are undoubtedly abnormal only because our science is too narrow, but in reality as strictly normal as the common operations of the organs of the senses. They are marvelous, and seem preternatural, only because they occur under laws that have not been identified and registered, but are really no more strange than the instantaneous passage of thought on the telegraph wires that stretch across a continent. We are by no means satisfied with Dr. Buchanan’s philosophy, for it savors too strongly of materialism. Yet, we cannot doubt that his book will be of value as a pioneer essay on the ground which psychology and the science of the mind must occupy, or else become inadequate and obsolescent.”